

### 13.0 ON-LINE USER DOCUMENTATION

This section defines a generic structure for on-line user documentation produced in HyperText Markup Language (HTML) format and viewed with a World Wide Web browser such as Mosaic or Netscape. User documentation includes text-based documents such as user manuals as well as graphics-based documents containing collections of images such as briefing slides. This section addresses the conversion of existing documents into an on-line format that supports both browsing and printing; as a result, it may have limited applicability to the creation of new documentation designed solely for on-line access. In addition, this section defines a generic format for the presentation of information in HTML-based pages<sup>1</sup> but does not prescribe a specific set of markup tags to be used in delivering documents in this format.

#### 13.1 DOCUMENT LIBRARY CONTENTS

These guidelines assume the presence of a document library homepage from which individual documents are accessed. The Library Contents page, shown in figure 13-1, lists the title of each document and a short (2-3 sentence) description of its content. Alternate formats (e.g., PostScript) of the document available in the library are listed, along with a link to each format.

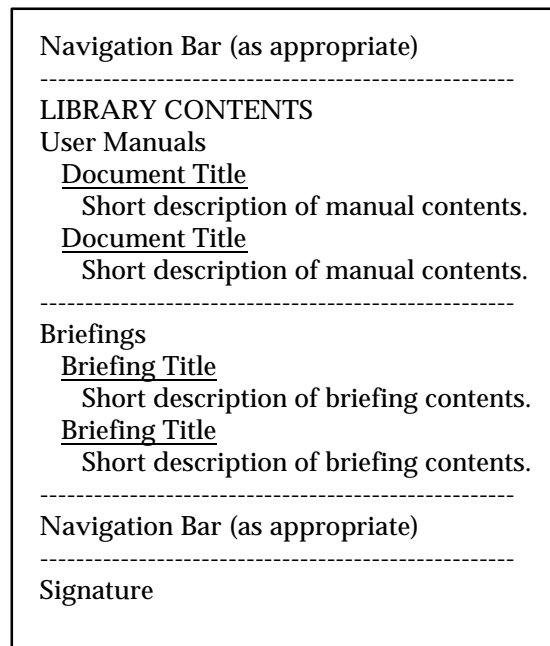


Figure 13-1. Format for a Library Contents page.

Each title links to the document itself and displays the Document Title page when selected. Any additions to or changes in the Library Contents page are flagged with small graphic icons (such as a yellow “new” burst) and not by flashing the document title or other information about the document. Groups of related documents (e.g., user manuals, briefings) are listed together and identified by a heading. Horizontal separators are used to delimit these groups and to set apart the navigation areas from the rest of the page.

<sup>1</sup> In this section, “page” refers to the contents of the file currently displayed in the browser window. When this term is used to describe the unit of printed output, it is identified as such.

The title of the page (i.e., the text that appears in the title bar of the browser window) is the name of the document library (e.g., JMCIS User Documentation). If appropriate, navigation bars provide links to other homepages (e.g., an on-line version of Jane's Fighting Ships) available from the browser. The final entry on the page is a signature identifying the author (e.g., name and e-mail address), creation date, and last-modified date for the page.

## 13.2 TEXT-BASED DOCUMENTS

### 13.2.1 Elements of Text-Based Documents

The guidelines presented here assume that a text-based document consists of (1) front matter such as a title page, foreword, and contents, (2) the main body of the document, and (3) end matter such as references, document-specific appendices, acronyms and abbreviations, a glossary, and an index. The information in the body of the document is organized hierarchically into chapters, sections, topics, and subtopics, with each level identified by a decimal-based numbering scheme, as shown in figure 13-2.

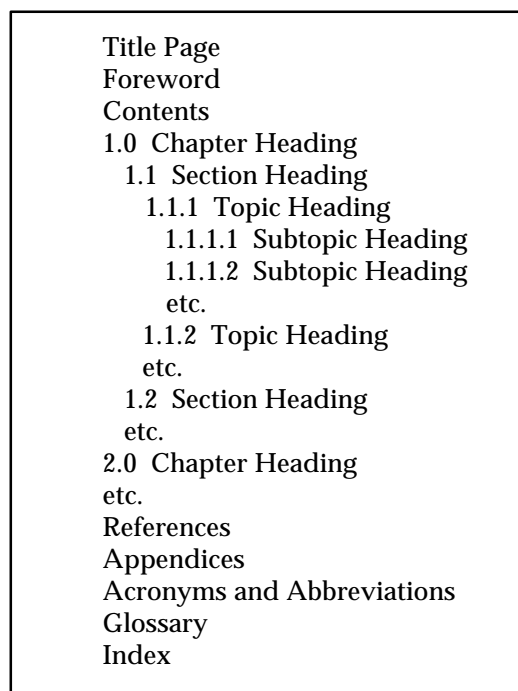


Figure 13-2. Generic structure of text-based documents.

In the guidelines that follow, the on-line structure of text-based documents depends on the overall length (in number of printed pages) and complexity (i.e., extensiveness of front and end matter) of the document. Documents can be categorized as single-part, simple multi-part, or complex multi-part. Single-part documents are those whose total length is five printed pages or less. The front and end matter in such documents is usually minimal, with contents and perhaps references included with the document body. The on-line version of single-part documents provides access to all of the information in the document from a single page in the browser window.

Simple multi-part documents are those whose total length is 100 printed pages or less, while complex multi-part documents are those that exceed 100 printed pages in length. In both cases, front and end matter are usually extensive. In simple multi-part documents, the contents may be 1-2 printed pages in length while this part of a complex multi-part document is usually much longer. The on-line version of the former provides links to all parts of the document from a single Document Contents page,

while the on-line version of the latter provides this access from separate Document Contents and Chapter Contents pages.

### 13.2.2 Single-Part Documents

A single-part text document is composed of Document Title and Main Body pages.

**Document Title page.** The Document Title page in a single-part document, shown on the left in figure 13-3, presents the full title of the document, ancillary document identification such as version number, document number, and publication date, and the name and address of the organization releasing the document. If a graphic image such as an organizational logo is included, it follows the ancillary document identification on the page. The document title serves as a link to the document itself.

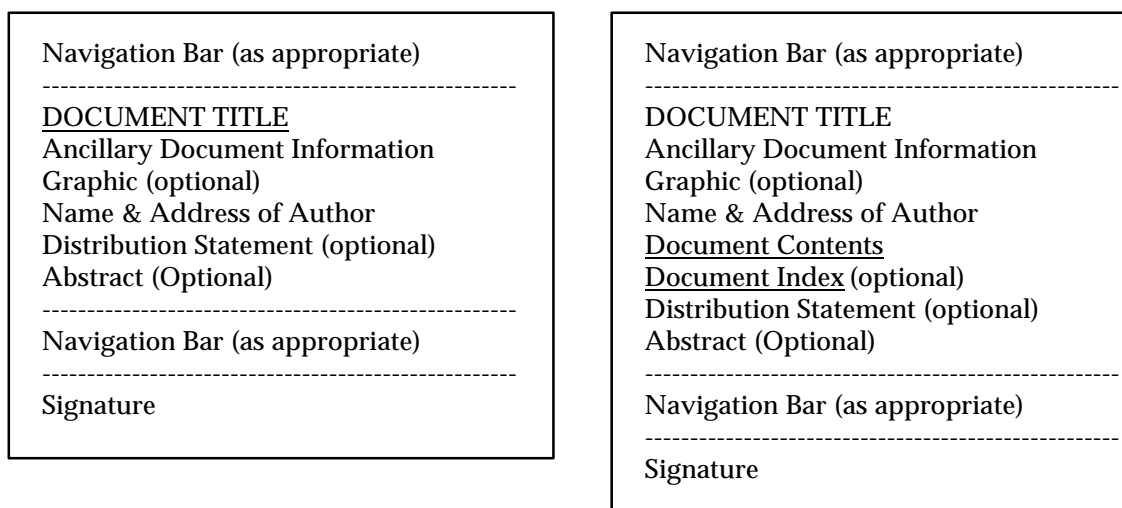


Figure 13-3. Format for a Document Title page in a single-part and multi-part document.

The information on the page (including the graphic, if one is used) is arranged so that it fits within the browser window when the window is sized to the portrait view of a printed page. If desired, a distribution statement can be included on the page, and an executive summary or abstract can be provided if one is available for the document. The navigation bars provide links to the Library Contents page and other homepages as appropriate. A signature is included at the bottom of the page, with horizontal separators delimiting it and the navigation areas from the rest of the page.

**Main Body page.** The Main Body page of a single-part document, shown in figure 13-4, includes the document title, followed by the document contents, front matter (as available), the document body, and end matter (as available). The contents provides links to each piece of front matter and end matter and all of the chapter, section, topic, and subtopic headings in the document. When a link is selected, the page scrolls to that portion of the document, with the heading that was selected positioned at the top of the browser window. The page includes navigation bars with links to other parts of the document library, as appropriate, and a signature at the bottom of the page. Horizontal separators are used to delimit the different parts of the document within the page.

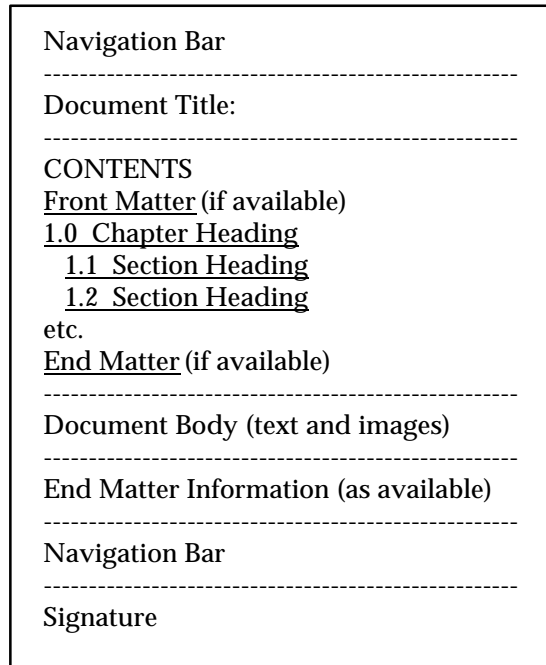


Figure 13-4. Format for a Main Body page in a single-part document.

### 13.2.3 Multi-Part Documents

A simple multi-part text document is composed of Document Title, Document Contents, Main Body, and Front and End Matter (if available) pages. A complex multi-part text document includes Document Title, Document Contents, Chapter Contents, Main Body, and Front and End Matter (if available) pages.

Document Title page. A Document Title page, shown on the right in figure 13-3, is provided for both simple and complex multi-part documents. The format and content of this page is the same as that for single-part documents, except that the page provides a link to a Document Contents page (rather than using the document title as the link to the document) and, if appropriate, to an Index page for the document.

Document Contents and Chapter Contents pages. The Document Contents page in a simple multi-part document, shown in figure 13-5, lists the individual pieces of front matter and end matter and all of the chapter, section, topic, and subtopic headings in the document, with each entry on the page linking to the information in that part of the document. The subordinate headings in each chapter are indented to provide a visual indication of their hierarchy within the chapter. The page is formatted to provide correct indenting of multi-line headings and to support printing in portrait view without cropping any of the text on the page. It is assumed that each heading will be numbered to indicate its level within the hierarchy of information in the document; as a result, the use of markup tags that display text as a numbered or unnumbered list is not recommended since they add either bullets or numbers to the text that follows.

|                                 |
|---------------------------------|
| Navigation Bar (as appropriate) |
| -----                           |
| Document Title:                 |
| -----                           |
| DOCUMENT CONTENTS               |
| <u>Available Front Matter</u>   |
| <u>1.0 Chapter Heading</u>      |
| <u>1.1 Section Heading</u>      |
| <u>1.1.1 Topic Heading</u>      |
| <u>1.1.1.1 Subtopic Heading</u> |
| <u>1.1.1.2 Subtopic Heading</u> |
| <u>1.1.2 Topic Heading</u>      |
| <u>1.2 Section Heading</u>      |
| etc.                            |
| <u>2.0 Chapter Heading</u>      |
| etc.                            |
| <u>Available End Matter</u>     |
| -----                           |
| Navigation Bar (as appropriate) |
| -----                           |
| Signature                       |

Figure 13-5. Format for a Document Contents page in a simple multi-part document.

The Document Contents page includes navigation bars with links to other parts of the document library as appropriate. Document identification (i.e., the document title) is available at the top of the page (below the navigation bar, if one is included), and a signature provided at the bottom of the page, with horizontal separators used to delimit these areas on the page.

The Document Contents page for a complex multi-part document, shown on the left in figure 13-6, differs from this page in a simple multi-part document in that it includes only chapter-level headings, with each heading linking to another page where the subordinate headings for that chapter are presented. The remainder of the Document Contents page is formatted in the same manner as this page in a simple multi-part document.

|   |   |
|---|---|
| Navigation Bar (as appropriate)<br><hr/> Document Title:<br><hr/> DOCUMENT CONTENTS<br><u>Available Front Matter</u><br><u>1.0 Chapter Heading</u><br><u>2.0 Chapter Heading</u><br>etc.<br><u>Available End Matter</u><br><hr/> Navigation Bar (as appropriate)<br><hr/> Signature | Navigation Bar<br><hr/> Document Title:<br>Chapter Title<br><hr/> CHAPTER CONTENTS<br><u>1.0 Chapter Heading</u><br><u>1.1 Section Heading</u><br><u>1.1.1 Topic Heading</u><br><u>1.1.1.1 Subtopic Heading</u><br><u>1.1.1.2 Subtopic Heading</u><br><u>1.1.2 Topic Heading</u><br><u>1.2 Section Heading</u><br>etc.<br><hr/> Navigation Bar<br><hr/> Signature |
|---|---|

Figure 13-6. Format for Document Contents and Chapter Contents pages in a complex multi-part document.

The Chapter Contents page, shown on the right in figure 13-6, provides links to the information in each section, topic, and subtopic in that chapter of the document. The page includes both document and chapter identification, with the remainder of the page formatted in the same manner as a Document Contents page. The navigation bar provides links to the Document Contents and Document Index pages for the document and to other library pages as appropriate.

Any page numbers that are a carryover from the paper version of the document are deleted from a Document or Chapter Contents page (since browsers do not provide page numbering when a page is viewed on-line or printed). The portion of the contents that lists the figures and tables in the document is also deleted (unless it is important that users of the document be able to access individual figures and tables, in which case these lists are retained and each entry in the list is defined as a link to that information within the body of the document).

Main Body page. The Main Body pages in a multi-part document, shown in figure 13-7, include document and chapter identification immediately below the navigation bar at the top of the page and signature information below the navigation bar at the bottom of the page. The first heading on the page uses the markup tag that matches the level of the information in the document (rather than default to an <h1> tag because it is the first heading on the page).

|                        |
|------------------------|
| Navigation Bar         |
| -----                  |
| Document Title         |
| Chapter Title          |
| -----                  |
| HEADING                |
| Text and Images        |
| -----                  |
| Footnote Text (if any) |
| -----                  |
| Navigation Bar         |
| -----                  |
| Signature              |

Figure 13-7. Format for a Main Body page in a multi-part document.

Front and End Matter pages. A Front Matter page, shown on the left in figure 13-8, includes the document title followed by the name of the front matter (e.g., (Foreword) and the text (and any images) in that part of the document. The page provides navigation bars with links to the Document Contents and Document Index pages, and a signature at the bottom of the page.

|                                   |
|-----------------------------------|
| Navigation Bar                    |
| -----                             |
| Document Title:                   |
| -----                             |
| FRONT MATTER HEADING              |
| Text (and images, as appropriate) |
| -----                             |
| Navigation Bar                    |
| -----                             |
| Signature                         |

|  |
|--|
| Navigation Bar   |
| -----  |
| Document Title:  |
| -----  |
| END MATTER HEADING   |
| <u>A B C D E F G H I J K L M N O P Q R S T U V W X Y Z</u> |
| A  |
| Entry and definition/section number                        |
| etc.   |
| B  |
| Entry and definition/section number                        |
| etc.   |
| etc.   |
| -----  |
| Navigation Bar   |
| -----  |
| Signature  |

Figure 13-8. Format for Front Matter and End Matter pages.

An End Matter page, shown on the right in figure 13-8, includes the document title followed by the name of the end matter (e.g., Acronyms and Abbreviations, Glossary, Index) and a set of alphabetic links that, when selected, scroll to the heading for the text beginning with that letter. The navigation bar on the Acronyms and Abbreviations and the Glossary pages provides links to the Document Contents and the Document Index pages while the navigation bar on the Index page includes a link to the

Document Contents page. Each End Matter page contains signature information below the navigation bar at the bottom of the page.

Any page numbering that is a carryover from the printed version of the document is deleted from the entries on the Index page and replaced with the hierarchical number (e.g., 1.2.3.1) for the part of the document where the entry is addressed. If the entry is related to more than one part of the document, each instance is listed in numerical order and defined as a link to the page for that part of the document.

### **13.2.4 Information Presentation and Navigation**

#### **13.2.4.1 Page Size in Multi-Part Documents**

The following options are available for defining the amount of information available on a page in a multi-part document:

Option 1: When one of the headings in a chapter is selected, the page displayed contains all of the information in the chapter, with the page scrolled so the heading selected is positioned at the top of the browser window. One disadvantage of this option is that the time to load a long chapter may be excessive, especially if it contains a large number of images; also, if the chapter is printed, the amount of information on the page may exceed capability of the browser to print in its entirety (e.g., previous versions of Netscape were able to print a maximum of about 25 pages).

Option 2: When one of the headings in a chapter is selected, the page displayed contains only the information at that level in the hierarchy (e.g., selecting a section heading loads the information for all of the topics and subtopics within that section; selecting a topic heading loads the information for all of the subtopics within that topic). This option has the same disadvantage as option 1 if a large amount of information is included on the page.

Option 3: When one of the headings in a chapter is selected, the page displayed contains only the information between that heading and the next one for which a link is defined (e.g., selecting a section heading loads the information between that heading and the first instance of a topic heading in that section; selecting a topic heading loads the information between that heading and the first instance of a subtopic heading in that topic). The disadvantage of this option is that some headings may lack text (so the page is empty) or may be uninformative in their content (so that the page provides introductory material for information appearing on a different page).

The option that is most appropriate for the length, structure, and content of the document is selected and implemented throughout the document. In general, the guidelines presented here recommend that an HTML page contain a maximum of five printed pages of information. A simple, multi-part document may be short enough to use option 1 whereas a complex, multi-part document may need to use option 2 or 3. Regardless of the option selected, the amount of information on each page is able to stand alone both in its structure and content. It is inappropriate to assume, for example, that the page for Section 1.1 of a document will be viewed before the page for Section 1.2. Similarly, it is inappropriate to begin the text on a page with "The next step is ..."

#### **13.2.4.2 Text, Tabular, and Graphic Information**

The following markup tags are recommended for the headings in a document: Chapter headings in upper case letters and tagged <h1>, section headings in upper case and tagged <h2>, topic headings in upper case and tagged <h3>, and subtopics in mixed case and tagged <h3>. If a different mapping is used, the heading levels are used in order (e.g., an <h1> tag is followed by an <h2> tag but not by an <h3> tag).



The document author should assume 12-point Times as the default proportional font for displaying the primary type of text in the browser window, and 10-point Courier as the default fixed font for displaying the secondary type of text in the window. The default proportional font is used for any text included in the graphics for the document; the default fixed font is used for any preformatted text (e.g., to present tabular information), with line length defined so that the text fits on a page when printed in portrait view.

These guidelines do not require that links be defined from the main text on the page to other parts of the document; these links can be provided at the discretion of the document author to be available as appropriate to the structure and content of the individual document.

If the page contains classified information, each paragraph is marked with the appropriate classification level. If the printing capabilities of the browser do not support the addition of headers (so that page-level classification markings can be printed), these markings are added manually.

Footnotes are numbered consecutively within each page and displayed as normal text, not as a footnote tag (doing so makes the footnote number a link to the text at the end of the document). The text for the footnotes is presented following the main text on the page and delimited by a separator.

Tabular information is formatted to fit within the portrait view of a printed page and included within the main text on the page, rather than presented in an external file. Tables are numbered sequentially within each chapter and placed immediately following the paragraph in which the table is first referenced. When converting an existing document for on-line access, care should be taken to use markup tags that will correctly align the information in the table.

Whenever possible, graphics are sized to fit within the portrait view of a printed page and displayed as in-line images on the page. Graphics that have to be sized to fit a landscape view are opened as an external image. These graphics are not displayed as in-line images since they require resizing of the browser window in order to be viewed in their entirety and result in hardcopy that is printed in landscape, rather than portrait, view.

When graphics are opened as an external image, they are displayed as a separate page in the current window and obscure the text information to which they relate. This approach to presenting graphics is not used since it interferes with the user's ability to view all of the information (i.e., both text and graphics) related to a particular topic in a single window.

Graphics have the same background color as the rest of the browser window and are numbered sequentially within each chapter. The graphic (or an icon indicating the presence of an external image) is placed immediately following the paragraph in which it is first referenced. The caption for the graphic follows the graphic and is part of the main text on the page (rather than included with the image). Graphics that parent (i.e., link to) other graphics provide a visual cue (e.g., a box surrounding the graphic) to indicate the presence of the link, and the child graphic is displayed as an external image.

### **13.2.4.3 Navigation Within a Document**

The navigation bar in a multi-part document provides links to the Document Contents and Document Index pages (if the latter is provided in the document) and to the "previous" and "next" information in the document. The links to the Contents and Index pages appear at the left end of the bar, with the remainder of the links arranged horizontally to the right. The bar is the width of the portrait view of the printed page, with the text for the links allowed to wrap to a second row as needed.

In a simple multi-part document, the navigation bar include the following links:

| Document | Document | Previous | Next |

|          |       |         |         |  |
|----------|-------|---------|---------|--|
| Contents | Index | Chapter | Chapter |  |
|----------|-------|---------|---------|--|

In a complex multi-part document, the links included in the navigation bar depend on the option used to define page size in the document. If option 1 is implemented, the navigation bar includes the following links:

|          |          |          |          |         |  |
|----------|----------|----------|----------|---------|--|
| Document | Document | Previous | Chapter  | Next    |  |
| Contents | Index    | Chapter  | Contents | Chapter |  |

If option 2 or 3 is implemented, the links in the navigation bar provide access to levels of the hierarchy at and above the one currently being viewed. For example, if the page contains section-level information, the navigation bar includes the following links:

|          |          |          |          |          |         |  |
|----------|----------|----------|----------|----------|---------|--|
| Document | Document | Previous | Previous | Chapter  | Next    |  |
| Contents | Index    | Section  | Chapter  | Contents | Chapter |  |
| Next     |          |          |          |          |         |  |
| Section  |          |          |          |          |         |  |

If the page contains topic-level information, the navigation bar includes the following links:

|          |          |          |          |          |          |  |
|----------|----------|----------|----------|----------|----------|--|
| Document | Document | Previous | Previous | Previous | Chapter  |  |
| Contents | Index    | Topic    | Section  | Chapter  | Contents |  |
| Next     | Next     | Next     |          |          |          |  |
| Chapter  | Section  | Topic    |          |          |          |  |

### 13.3 GRAPHICS-BASED DOCUMENTS

A graphics-based document includes Briefing Contents and Slide pages. The Briefing Contents page, shown on the left in figure 13-9, lists the title of the briefing and ancillary information such as the briefing date and/or audience, followed by a list of slide titles, each of which links to an external slide image. If a set of related slides share the same title because they provide successive disclosure of the slide content (e.g., slide 1 presents the first bullet of information, slide 2 adds the second bullet, slide 3 the third bullet, etc.), only the final slide in the set is listed on the page. If a set of related slides share the same title but present different information (e.g., each one provides detail on a different portion of the slide), all of the slides in the set are listed on the page and numbered consecutively (e.g., "Slide Title (1 of 3)," "Slide Title (2 of 3)," "Slide Title (3 of 3)").

|  |  |
|--|--|
| <div> <div>Navigation Bar (as appropriate)</div> <div> <div>Briefing Title:</div> <div>Ancillary Information</div> <div><u>Slide Title</u></div> <div><u>Slide Title</u></div> <div>etc.</div> <div><u>Slide Index</u></div> </div> <div>Navigation Bar (as appropriate)</div> <div>Signature</div> </div> | <div> <div>Navigation Bar</div> <div> <div>Briefing Title:</div> <div>Slide Image</div> </div> <div>Navigation Bar</div> <div>Signature</div> </div> |
|--|--|

Figure 13-9. Format for Briefing Contents and Slide pages in a graphics-based document.

If desired, a slide index can be included on the Briefing Contents page. This index links to a page containing a miniature view of all of the slides in the briefing, similar to the Slide Sorter view available in PowerPoint. The Briefing Contents page includes navigation bars with links to the Library Contents page and other homepages as appropriate, and provides signature information at the bottom of the page.

Each slide page, shown on the right in figure 13-8, includes the title of the briefing and a navigation bar with links to the Briefing Contents page, the Slide Index (if one is available), and the previous and next slides in the briefing. The image on each page is sized to fit in landscape view for printing.